

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-36 (canceled)

Claim 37 (currently amended): Apparatus for transiently enhancing the optical transparency of a target biological tissue covered by a surface permeability barrier of tissue, said apparatus comprising in a single apparatus:

(a) porative means for bypassing said surface permeability barrier of tissue with minimal tissue damage to permit the delivery of a clarifying agent past said surface permeability barrier of tissue to the interstitial space of said target covered biological tissue,

C (b) means for delivering said clarifying agent ~~past to~~ said surface permeability barrier of tissue for delivery therethrough ~~to said covered biological tissue to enhance optical transparency thereof, and~~

(c) means for delivery of light to, and/or collection of light from said target covered biological tissue for diagnostic or therapeutic applications, wherein said porative means and said delivery means are operated simultaneously or sequentially to deliver the clarifying agent to the interstitial space of the target tissue to transiently enhance the transparency thereof, and said light means is operational thereafter to permit light delivery to, or detection from, the target tissue.

Claim 38 (original): Apparatus as in claim 37, wherein said therapeutic application is directed at affecting skin appendages.

Claim 39 (original): Apparatus as in claim 38, wherein said skin appendages are sebaceous glands.

Claim 40 (original): Apparatus as in claim 38, wherein said skin appendages are hair follicles.

Claim 41 (original): Apparatus as in claim 38, wherein said skin appendages are eccrine glands.

Claim 42 (original): Apparatus as in claim 37, wherein said therapeutic application is directed at affecting subcutaneous fat.

Claim 43 (original): Apparatus as in claim 37, wherein said therapeutic application is directed at treating pigmented lesions of the skin.

Claim 44 (original): Apparatus as in claim 37, wherein said therapeutic application is directed at treating vascular lesions of the skin.

Claim 45 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at light microscopy of biological tissue.

Claim 46 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at confocal microscopy of biological tissue.

Claim 47 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at optical coherence tomography of biological tissue.

Claim 48 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at fluorescence spectroscopy of biological tissue.

Claim 49 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at reflectance spectroscopy of biological tissue.

Claim 50 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at non-invasive analyte sensing.

Claim 51 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at measuring the glucose concentration in blood.

Claim 52 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at measuring the glucose concentration in interstitial fluids.

Claim 53 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at measuring cholesterol concentration in blood.

Claim 54 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at optical tomography of biological tissue.

Claim 55 (original): Apparatus as in claim 37, wherein said diagnostic application is directed at photodynamic detection of abnormal tissue.

Claim 56 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises abrading means to abrade said surface permeability barrier of tissue.

Claim 57 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises an iontophoresis system to apply iontophoresis across said surface permeability barrier of tissue.

Claim 58 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises an electric pulse generator to induce electroporation of said surface permeability barrier of tissue.

Claim 59 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises an acoustic generator to apply acoustic pressure to said surface permeability barrier of tissue.

Claim 60 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises means to apply optical pressure to said surface permeability barrier of tissue.

Claim 61 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises means to apply a temperature gradient across said surface permeability barrier of tissue.

Claim 62 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises means to apply a concentration gradient across said surface permeability barrier of tissue of a clarifying agent or of a carrier agent, carrying said clarifying agent and increasing the permeability of said surface permeability barrier of tissue.

Claim 63 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises an adhesive tape for stripping a portion of said surface permeability barrier of tissue.

Claim 64 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises a laser to ablate said surface permeability barrier of tissue.

Claim 65 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises an ultrasonic generator to apply sonophoresis across said surface permeability barrier of tissue.

Claim 66 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises a radiofrequency generator to ablate said surface permeability barrier of tissue.

Claim 67 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises an electrical generator that delivers electric arcs at the delivery probe tip to said surface permeability barrier of tissue.

Claim 68 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises means to apply a penetrating solvent to said surface permeability barrier of tissue to increase the permeability of said surface permeability barrier of tissue thereby permitting the passage therethrough of said clarifying agent.

Claim 69 (original): Apparatus as in claim 37, wherein said means for bypassing said surface permeability barrier of tissue comprises a syringe to inject said clarifying agent past said surface permeability barrier of tissue and into said covered biological tissue.

Claim 70 (new): The apparatus of claim 37, wherein said porative means is selected from the group consisting of electroporation, ultrasonic poration, RF poration, microneedle array, chemical enhancement of trans-membrane delivery, and iontophoresis.
